Remarks/Arguments

All claims were rejected under 35 USC 103 as being unpatentable over Nomi (US 4,368,766) in view of Johnson at al ((MDDI article, "Breathable Films for Medical Applications", July 2000). Examiner stated that it would be obvious to one having ordinary skill in the art to substitute the non-porous films described by Johnson for the microporous film of Nomi in order to provide the Nomi water container with a membrane having increased tear strength, increased odor barrier properties, decreased sensitivity to surfactants, increased resistance to abrasion and other mechanical challenges, and resistance to surface contamination, as taught by Johnson et al.

Applicants respectfully submit that the Examiner did not establish a *prima facie* case of obviousness under MPEP § 2142-2143 for the reasons explained below.

Reason 1. There is no suggestion or motivation to combine the two references (MPEP § 2143.01)

The Johnson's article actually "teaches away" from substituting Johnson's monolithic membranes for Nomi's microporous material with respect to two important properties:

- **Modulus properties:** Johnson teaches that breathable monolithic films exhibit low modulus (page 2, line 5). This is a positive for Johnson who is interested in medical grade materials that need to be stretched to conform to skin, but for a water container it is a negative, because the container's wall should not stretch under the weight of the water inside.

- **Resistance to swelling:** Johnson teaches that monolithic membranes exhibit "significant swell" whereas microporous membranes exhibit "little or no swell"

(table 1). Swelling with fluids may not be an issue for Johnson who is interested in medical applications, but for a drinking water container swelling of the wall of the container with water would be an undesirable effect.

The benefits of monolithic membranes reported by Johnson and relied upon by the Examiner to support the obviousness rejection are listed below and are followed by Applicants' comments:

- **Tear resistance:** Nomi (col 1, line 49) states that his container is "resistant to tearing and ripping". The person skilled in the art of water containers would not be motivated to seek tear resistance from another type of material insofar as Nomi teaches that tear resistance is a specific advantage of his container.

- **Odor barrier properties:** Nomi (col 1, line 42-45) states that "no smell or pollution of the inside water occurs because no contaminants adhere to the outside contact surface, dissolve or transfer into the inside water across the container wall". The person skilled in the art of water containers would not be motivated to seek odor barrier properties from another type of material insofar as Nomi teaches that odor barrier is a specific advantage of his container.

- **Decreased sensitivity to surfactants:** This may be an advantage for Johnson because Johnson is concerned with fabric laminates which may have to withstand laundering, but seems irrelevant in the case of a water container which is never going to be subjected to laundering.

- **Resistance to surface contamination:** Nomi states that "no contaminants adhere to the outside contact surface, dissolve or transfer into the inside water across the container wall" (col 1, line 42-45). The person skilled in the art of water containers would not be motivated to seek resistance to surface

contamination from another type of material, insofar as Nomi teaches that resistance to surface contamination is a specific advantage of his container.

- **Resistance to abrasion and other mechanical challenges:** The test results reported in the Johnson's article do not support the superiority of monolithic films to mechanical challenges. On the contrary, if we compare Johnson's and Nomi's tensile strength data we find that Nomi's microporous film has superior tensile strength. Nomi's tensile strength is 514 kg/cm2 or more (col 3 line 42). Johnson's tensile strength ranges from a low of 7.1 MPa (72.4 kg/cm2) in the cross direction to a high of 46.8 MPa (477 kg/cm2) in the transverse direction, depending on the type of block copolymer tested (Table 3).

Johnson does not recognize key advantages of a non-porous membrane relative to a microporous membrane that would be specifically applicable to a self-cooling container rather than a medical device. Thus, there is no suggestion that might lead the person skilled in the art of water containers to substitute Johnson's monolithic film for Nomi's microporous film. The desirability of the combination is not suggested. Such suggestion can only be derived from the hindsight knowledge of Applicants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 USC §103 is impermissible. See *W L Gore and Assocs, Inc, v Garlock, Inc, 721 F.2d 1553, 220 USPQ at 312-313.*

Reason 2. One of the references relied on is not analogous prior art (MPEP § 2141(a))

Another reason why Applicants believe that a *prima facie* case for obviousness has not been presented is that the Johnson reference is directed to an entirely different art and in Applicants' opinion is not analogous. The Nomi reference is directed to a self-cooling water bag and is therefore pertinent to Applicants' invention, but the Johnson reference is taken from a MDDI (Medical Devices & Diagnostic Industry)

Journal and is directed to medical applications. The person skilled in the art of water containers would not be inclined to research a publication in such a remote area of technology.

Reason 3. Applicants' invention produces new and unexpected results (MPEP § 716.02)

Comparative test results illustrating unexpected superior performance relative to prior art are presented in the attached Declaration under 37 CFR §1.132.

Closing

Applicants respectfully submit that a *prima facie* case for obviousness has not been presented. Withdrawal of the obviousness rejection of claims 1-4 is therefore respectfully requested.

Date: September 19, 2007

Respectfully submitted,

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